

WHAT IS CLAIMED IS:

1. An image generating method for acquiring a plurality of frames of data from video data having a multitude of frames of data, the data
5 representing tones of an image by means of a multitude of pixels, and synthesizing the plurality of frames of data to generate image data for representing by means of multitude of pixels the tones of an output image for an image output device, the method comprising the steps of:

(a) determining, on the basis of image quality setting data that
10 allows setting of image quality of the output image, a number of frames of data for acquisition from the video data, and acquiring the determined number of frames of data from the video data; and

(b) synthesizing the acquired number of frames of data and generating the image data.
15

2. The image generating method according to claim 1, further comprising the steps of:

(c) acquiring, on the basis of the plurality of frames of data, deviation data representing deviation among images represented by the
20 plurality of frames of data; and

(d) performing a conversion process wherein, on the basis of the acquired deviation data, at least one of the respective images represented by the plurality of frames of data is moved to convert at least one of the plurality of frames of data in order to reduce deviation among images,
25 wherein the step (b) synthesizes the plurality of frames of data subjected to the conversion process and generates the image data.

3. The image generating method according to claim 1, wherein the step (a), in association with higher image quality indicated by the image quality setting data, increases the number of the frames acquired.

5 4. The image generating method according to claim 2, wherein the step (a), in association with higher image quality indicated by the image quality setting data, increases the number of the frames acquired.

10 5. The image generating method according to claim 1, wherein the step (a) determines the number of the frames of data for acquisition on the basis of the total number of pixels in the frame data and the image quality setting data, and acquires the determined number of the frames of data from the video data.

15 6. The image generating method according to claim 2, wherein the step (a) determines the number of the frames of data for acquisition on the basis of the total number of pixels in the frame data and the image quality setting data, and acquires the determined number of the frames of data from the video data.

20 7. The image generating method according to claim 5, wherein the image quality setting data is a coefficient multiplied by a ratio of the total number of pixels in the frame data to the total number of pixels in the image data; and the step (a) calculates the value of the coefficient multiplied
25 by the ratio, determines the number of frames of data for acquisition generally coinciding with the value, and acquires the determined number of

the frames of data from the video data.

8. The image generating method according to claim 6, wherein the image quality setting data is a coefficient multiplied by the ratio of the total number of pixels in the frame data to the total number of pixels in the image data; and the step (a) calculates the value of the coefficient multiplied by the ratio, determines the number of frames of data for acquisition generally coinciding with the value, and acquires the determined number of the frames of data from the video data.

10

9. The image generating method according to claim 1, wherein the step (a), while acquiring the frames of data sequentially from the video data, calculates for each pixel in the image data the distance to the closest pixel among the pixels in the plurality of acquired frames of data; on the basis of a summary value of the calculated distances and the image quality setting data, determines whether a predetermined terminating condition for terminating acquisition of the frame data is met; and in the event that the terminating condition is met, terminates acquisition of the frame data.

20

10. The image generating method according to claim 2, wherein the step (a), while acquiring the frames of data sequentially from the video data, calculates for each pixel in the image data the distance to the closest pixel among the pixels in the plurality of acquired frames of data; on the basis of a summary value of the calculated distances and the image quality setting data, determines whether a predetermined terminating condition for terminating acquisition of the frame data is met; and in the event that the

25

terminating condition is met, terminates acquisition of the frame data.

11. The image generating method according to claim 9, wherein the image quality setting data is a threshold value for a value summarizing distance to the closest pixel among pixels of the plurality of frames of data for each pixel in the image data; and the step (a) acquires the frame data from the video data until the value summarizing calculated distance is equal to or less than the threshold value.

12. The image generating method according to claim 10, wherein the image quality setting data is a threshold value for a value summarizing distance to the closest pixel among pixels of the plurality of frames of data for each pixel in the image data; and the step (a) acquires the frame data from the video data until the value summarizing calculated distance is equal to or less than the threshold value.

13. The image generating method according to claim 1, wherein the step (a), while acquiring the frames of data sequentially from the video data, calculates the number of frames of data having a pixel within a predetermined range for each pixel in the image data; on the basis of the calculated summary value and the image quality setting data, determines whether a predetermined termination condition for terminating acquisition of the frame data is met; and in the event that the termination condition is met, terminates acquisition of the frame data.

14. The image generating method according to claim 2, wherein the

step (a), while acquiring the frames of data sequentially from the video data, calculates the number of frames of data having a pixel within a predetermined range for each pixel in the image data; on the basis of the calculated summary value and the image quality setting data, determines
5 whether a predetermined termination condition for terminating acquisition of the frame data is met; and in the event that the termination condition is met, terminates acquisition of the frame data.

15. The image generating method according to claim 13, wherein the
10 image quality setting data is a threshold value for a value summarizing the number of frames of data having the pixel within the predetermined range for each pixel in the image data; and the step (a) acquires the frame data from the video data until the value summarizing calculated number is equal to or greater than the threshold value.

15

16. The image generating method according to claim 14, wherein the image quality setting data is a threshold value for a value summarizing the number of frames of data having the pixel within the predetermined range for each pixel in the image data; and the step (a) acquires the frame data
20 from the video data until the value summarizing calculated number is equal to or greater than the threshold value.

17. The image generating method according to claim 1, wherein the step (a), while acquiring the frames of data sequentially from the video data,
25 calculates among the pixels in the frame data the number of pixels of frame data within a predetermined range whose number of pixels is equal to or

less than a predetermined number; on the basis of the calculated number and the image quality setting data, determines whether a predetermined terminating condition for terminating acquisition of the frame data is met; and in the event that the terminating condition is met, terminates
5 acquisition of the frame data.

18. The image generating method according to claim 2, wherein the step (a), while acquiring the frames of data sequentially from the video data, calculates among the pixels in the frame data the number of pixels of frame
10 data within a predetermined range whose number of pixels is equal to or less than a predetermined number; on the basis of the calculated number and the image quality setting data, determines whether a predetermined terminating condition for terminating acquisition of the frame data is met; and in the event that the terminating condition is met, terminates
15 acquisition of the frame data.

19. The image generating method according to claim 17, wherein the image quality setting data is a threshold value for the ratio, in relation to the total number of pixels in the image data, of the number of pixels on
20 which the number of pixels of the frame data within a predetermined range among the pixels of the image data is equal to or less than a predetermined number; and the step (a) calculates the ratio, and acquires the frame data from the video data until the ratio is equal to or less than the threshold value.

25

20. The image generating method according to claim 18, wherein the

image quality setting data is a threshold value for the ratio, in relation to the total number of pixels in the image data, of the number of pixels on which the number of pixels of the frame data within a predetermined range among the pixels of the image data is equal to or less than a predetermined
5 number; and the step (a) calculates the ratio, and acquires the frame data from the video data until the ratio is equal to or less than the threshold value.

21. The image generating method according to claim 1, wherein the
10 step (a) receives input of information affecting the image quality of the output image; on the basis of the input information, acquires the image quality setting data; and on the basis of the acquired image quality setting data, determines the number of frames of data for acquisition from the video data.

15

22. The image generating method according to claim 2, wherein the
step (a) receives input of information affecting the image quality of the output image; on the basis of the input information, acquires the image quality setting data; and on the basis of the acquired image quality setting
20 data, determines the number of frames of data for acquisition from the video data.

23. An image generating device that acquires a plurality of frames of data from video data having a multitude of frames of data, the data
25 representing tones of an image by means of a multitude of pixels, and that synthesizes the plurality of frames of data to generate image data for

representing by means of multitude of pixels the tones of an output image for an image output device, the device comprising:

frame acquiring module that determines, on the basis of image quality setting data that allows setting of image quality of the output image, a number of frames of data for acquisition from the video data, and that
 5 acquires the determined number of frames of data from the video data; and

synthesizing module that synthesizes the acquired number of frames of data and generates the image data.

10 24. A recording medium on which a computer program is recorded, the computer program being used for acquiring a plurality of frames of data from video data having a multitude of frames of data, the data representing tones of an image by means of a multitude of pixels, and synthesizing the plurality of frames of data to generate image data for representing by means
 15 of multitude of pixels the tones of an output image for an image output device, the computer program causing a computer to attain the functions of:

determining, on the basis of image quality setting data that allows setting of image quality of the output image, a number of frames of data for acquisition from the video data, and acquiring the determined number of
 20 frames of data from the video data; and

synthesizing the acquired number of frames of data and generating the image data.